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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF ORANGE

CIVIL COMPLEX CENTER

ORANGE COUNTY WATER DISTRICT,

Plaintiff,

vs.

NORTHROP CORPORATION; NORTHROP GRUMMAN CORPORATION; AMERICAN ELECTRONICS, INC.; MAG AEROSPACE INDUSTRIES, INC.; GULTON INDUSTRIES, INC.; MARK IV INDUSTRIES, INC.; EDO CORPORATION; AEROJET-GENERAL CORPORATION; MOORE BUSINESS FORMS, INC.; AC PRODUCTS INC.; FULLERTON MANUFACTURING COMPANY; FULLERTON BUSINESS PARK LLC; and DOES 1 through 400, inclusive,

Defendants.

AND RELATED CROSS ACTIONS.

Case No. 04CC00715

[Assigned to The Honorable Kim Dunning, Dept. CX104]

THE ARNOLD ENGINEERING COMPANY'S CLOSING SUMMARY BRIEF, ISSUES PRESENTED, [PROPOSED] FACTS PROVEN AT TRIAL AND [PROPOSED] CONCLUSIONS

Complaint Filed: December 17, 2004
Trial Date: February 10, 2012

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I. SUMMARY BRIEF RE PHASE I

Despite over 50 days of trial over 5 months during which approximately 800 exhibits were admitted into evidence and dozens of witnesses testified, the District has not proven that The Arnold Engineering Company caused it to actually incur costs. The District's claims against Arnold fail on all levels of its causation burden: (1) Chemical use; (2) Release to soil; (3) Release to groundwater; and, (4) Damages proximately caused by Arnold. Put simply, Plaintiff has not borne its burden to prove, at a minimum, that any of the VOCs at issue in this case were released by Arnold at 1551 East Orangethorpe Avenue and impacted groundwater in a manner that required the District to actually incur response costs. Due to Plaintiff's failure of proof, Arnold should prevail.

While the evidence and basis of the Plaintiff's claim against Arnold have continued to be a moving target throughout the trial (as they were in discovery), Plaintiff's entire case against Arnold seems to be based on what Plaintiff would like the evidence to be, rather than the actual evidence presented at trial. There were a number of occasions during this trial when Plaintiff attempted to introduce evidence that had not been produced or stipulated for admission. Other times, evidence was proffered based on the assertion by counsel that it was supported by the facts or law, but he could not tell the Court the actual legal or factual basis for admission. However, the actual facts in evidence (and the supporting legal bases) are what matter, not what Plaintiff or its counsel think they should be.

The following sections of this filing reflect the evidence which was admitted at trial broken down by the elements of Plaintiff's claim. For context, we examine Plaintiff's claims against Arnold and the evidence in the framework of this case and the actual evidence admitted.

Plaintiff's causation case rises and falls on the mostly speculative opinions of Dr. Waddell, most of which had no foundation or were impeached by: (A) the testimony of witnesses who actually worked at the locations during the times at issue; (B) documents contained in his own files; (C) evidence that the District did not provide to him; or, (D) evidence he did not locate. Waddell's testimony as to Arnold was especially suspect because he crossed the line from objective expert to advocate several times, including doctoring an exhibit showing TCE soil vapor

concentrations at the Johnson Controls site without advising the Court of his misleading testimony.

Plaintiff's entire case against Arnold boils down to the unfounded opinions of Waddell concerning:

(1) vapor droplets that may have fallen on to a concrete floor, despite the testimony of witnesses who worked with the degreasers that it did not happen;

(2) 5-gallon buckets that may have spilled, despite the unrebutted testimony of the witnesses who worked there that it did not happen;

(3) contamination found at a clarifier which Arnold did not use, found years after Arnold left the property;

(4) drains leading to a clarifier, which drains did not exist;

(5) soil contamination at an adjacent site, hundreds of feet away, where soil was contaminated with the same chemicals at all depths tested all the way down to groundwater;

(6) sparse groundwater grab samples, at locations selected by Plaintiff's counsel, without the input of even Plaintiff's own testifying expert sampler, Mr. Marello.

Each of these "opinions" was debunked, as described in the following sections. Debunked based on the evidence submitted and cited herein, not via speculation.

The District's counsel started this case by saying: "if you make a mess, clean it up." The inescapable conclusion from all the evidence is that this case itself is a mess that the District has made and wants the Court to clean up. That, we submit, the Court cannot do.

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II. ISSUES/CLAIMS PRESENTED FOR ADJUDICATION IN PHASE ONE OF THIS TRIAL AS TO THE ARNOLD ENGINEERING COMPANY

In phase one of this trial, the District's causes of action presented the following issues/claims for the Court's determination as to Arnold:

1. Whether Arnold caused groundwater contamination or pollution for which the District actually incurred costs;

2. Whether Arnold's activities at 1551 E. Orangethorpe Ave., Fullerton California ("the 1551 Site") threaten to eause groundwater contamination or pollution for which the District actually incurred costs;

3. Whether Arnold is a "person who is liable" to the District under the Carpenter-Presley-Tanner Hazardous Substance Account Act (the "HSAA");

4. Whether the District actually incurred costs cleaning up contamination or pollution caused by Arnold, or containing threatened contamination or pollution caused by Arnold;

5. Assuming the District actually incurred costs cleaning up contamination or pollution caused by Arnold, whether such costs were reasonable;

6. Whether, and to what extent, the District may seek contribution or indemnity from Arnold under the OCWD Act or HSAA for remediation or clean-up costs actually incurred;

7. Whether the District sought and is entitled to some form of declaratory relief as against Arnold.

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III. FACTS PROVEN AT TRIAL WHICH SUPPORT OR REFLECT THE PROPOSED CONCLUSIONS OF LAW

A. The Historical Activities at the 1551 Site

1. Ensign Carburetor

Ensign Carburetor first developed and occupied the 1551 Site in 1955. [Ex. 23751 at p. 4 (Farmer Depo. at 23:23-24:2)].[1] At the 1551 Site, Ensign manufactured carburetors for trucks and stationary engines. [Ex. 23751 at p. 5 (Farmer Depo. at 24:22-25)].

From 1955 to 1960, Ensign employed Donalee Farmer as a maintenance electrician at the 1551 Site. [Ex. 23751 at p. 4 (Farmer Depo. at 24:7-8), p. 5 (Farmer Depo. at 24:17-21), p. 6 (Farmer Depo. at 28:10-13]. Mr. Farmer familiarized himself with the entire building on the 1551 Site during the course of his employment. [Ex. 23751 at p. 5 (Farmer Depo. at 26:6-13)]. During Ensign's occupancy of the 1551 Site, there was an automotive pit inside the building that was approximately five feet deep and twenty feet long. [Ex. 23751 at p. 6 (Farmer Depo. at 26:14-24)]. This automotive pit was later used by Arnold as the location of a clarifier. [Ex. 23751 at p. 25 (Farmer Depo. at 75:14-76:1)].

2. Arnold Engineering

Arnold occupied the 1551 Site starting in 1960. [Ex. 1049 at p. 2]. Mr. Farmer began working for Arnold at the 1551 Site in April 1961 as the maintenance manager. [Ex. 23751 at p. 7 (Farmer Depo. at 30:3-19)]. Mr. Farmer worked continuously at the 1551 Site for Arnold until it closed in 1986. [Ex. 23751 at p. 9 (Farmer Depo. at 34:24-35:10)]. As the maintenance manager, Mr. Farmer's responsibilities included compliance with certain requirements of environmental agencies such as EPA, the Orange County Sanitation District, and the South Coast Air Quality Air Management District ("SCAQMD"). [Ex. 23751 at pp. 9-10 (Farmer Depo. at 35:11-36:5)]. Mr. Farmer's responsibilities as maintenance manager encompassed the entire building at the 1551 Site. [Ex. 23751 at p. 10 (Farmer Depo. at 36:11-21)].

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[1] Mr. Farmer lives out of state and his video deposition testimony was played in Court. The exhibit and page references are to the hard copy excerpts of the videotaped testimony which were admitted as a separate exhibit.

Arnold's business activities at the 1551 Site in the early 1960s included the production of laminations and lead frames. [Ex. 23751 at p. 8 (Farmer Depo. at 32:4-21)]. Initially, the production of lead frames entailed the use of 1,1,1-Trichloroethane (1,1,1-TCA) as a degreaser. [Ex. 23751 at pp. 10-11 (Farmer Depo. at 37:13-23 – lead frames cleaned with "trichlor"), p. 5 (Farmer Depo. at 25:6-7 – "trichlor" is a reference to 1,1,1-TCA]. In the middle of the building, the lead frames would be lowered in a basket into a degreaser containing 1,1,1-TCA until stamping oils were removed. [Ex. 23751 at p. 11 (Farmer Depo. at 37:22-38:6)]. The lead frames would be dry when removed from the degreaser as the parts were degreased with vapor. [Ex. 23751 at p. 11 (Farmer Depo. at 38:15-18)].

The degreaser was in a concrete pit approximately 5 feet deep and 6-10 feet long, and the concrete was at least 8 inches thick. [Ex. 23751 at pp. 11-12 (Farmer Depo. at 38:19-39:20)]. Mr. Farmer testified he never saw any cracks in the concrete. [Ex. 23751 at p. 20 (Farmer Depo. at 62:13-21)]. The dimensions of the Delta degreaser within the pit were approximately 6x4x6 feet. [Ex. 23751 at p. 11 (Farmer Depo. at 38:23-39:4)].

The original degreaser was used until approximately 1986. [Ex. 23751 at p. 12 (Farmer Depo. at 40:11-13)]. Mr. Farmer's unrebutted testimony was that during the entire time that he worked at the 1551 Site, the only chemical used in the original degreaser was 1,1,1-TCA. [Ex. 23751 at p. 12 (Farmer Depo. at 40:22-41:4)]. The 1,1,1-TCA was pumped into the degreaser by a supplier from a pump truck. [Ex. 23751 at p. 12 (Farmer Depo. at 41:11-15)]. The supplier would also pump out the spent 1,1,1-TCA for recycling. [Id.]. The supplier used a long hose to transfer the 1,1,1-TCA between the degreaser and the pump truck. [Ex. 23751 at p. 13 (Farmer Depo. at 42:2-7)].

If a spill of 1,1,1-TCA had occurred at the 1551 Site, it would have been the maintenance department's responsibility to clean it; however, Mr. Farmer was never made aware of nor asked to clean a spill of 1,1,1-TCA at the 1551 Site. [Ex. 23751 at p. 13 (Farmer Depo. at 42:8-18)]. Plaintiff provided no contrary evidence.

In the early period of its occupancy of the 1551 Site (prior to Arnold's chemical milling operation which began in the mid-1970s), Arnold also used 1,1,1-TCA in a cold soak tank located

next to the Delta degreaser where parts were soaked prior to use of the degreaser. [Ex. 23751 at p. 13 (Farmer Depo. at 43:6-12)].

Arnold did not use 1,1,1-TCA (or any other VOCs) in the production of laminations. [Ex. 23751 at p. 14 (Farmer Depo. at 46:3-4; 48:17-19)].

In approximately 1976, Arnold added a chemical milling operation which required the use of two solvent degreasers. [Ex. 23751 at p. 16 (Farmer Depo. at 53:16-24)]. Arnold's chemical milling operation involved etching of lead frames; prior to chemical milling in 1976, lead frames were stamped rather than etched. [Ex. 23751 at p. 17 (Farmer Depo. at 55:19-24)]. The two additional degreasers were located in an expansion to the 1551 E. Orangethorpe building that occurred in the mid-1970's. [Ex. 23751 at p. 16 (Farmer Depo. at 54:3-11)]. A total of six permits for degreasers (including renewal permits) were admitted into evidence. [Exs. 537, 538, 539, 540, 541, and 542].

The degreasers used in the chemical milling operation were located in a concrete pit approximately 3 feet deep, and the concrete was at least 8-10 inches thick. [Ex. 23751 at pp. 19-20 (Farmer Depo. at 61:24-62:12)]. Mr. Farmer never saw any cracks in the concrete, spills from the degreasers, or spray coming out of the degreasers. [Ex. 23751 at p. 20 (Farmer Depo. at 62:13-21)]. Plaintiff provided no contrary eyewitness testimony.

The degreasers for the chemical milling operation used a conveyor system where sheets were hung on rods and would pass through a vapor and spray of extremely hot 1,1,1-TCA. [Ex. 23751 at p. 19 (Farmer Depo. at 60:14-25)]. Former Arnold employee Renee Otero, who worked with these degreasers, described the conveyor system as a "ferris wheel" which would take the sheets in and out of the degreaser. [RT 2205:9-15]. The sheets would be dry upon exit from the degreasers. [[Ex. 23751 at p. 19 (Farmer Depo. at 61:4-5); RT 2240:5-24 (Otero testimony)]. The sheets would not drip upon exiting the degreasers. [Ex. 23751 at p. 40 (Farmer Depo. at 122:9-12); RT 2240:5-24 (Otero testimony)]. In the entire time that Mr. Farmer was the maintenance manager at the 1551 Site, Mr. Farmer never heard of any spills of 1,1,1-TCA from the degreasers. [Ex. 23751 at p. 73 (Farmer Depo. at 231:19-22)]. Ms. Otero testified that the floor around the degreasers was not slippery, and that she never saw mist coming out of the degreasers. [R.T.

2241:8-19]. The degreasing area was only cleaned with a broom or mop every so often for general maintenance and cleanliness. [RT 2271:12-20].

For a period of time, the Baron Blakeslee degreasers were filled from 55-gallon drums, from which 1,1,1-TCA was hand-pumped into the degreasers. [Ex. 23751 at p. 20 (Farmer Depo. at 62:23-63:2)]. Spent 1,1,1-TCA would also be pumped out of the degreasers into drums for recycling. [Ex. 23751 at p. 20 (Farmer Depo. at 63:3-6)]. According to Ms. Otero, the maintenance department was responsible for filling the degreasers, which was done before Ms. Otero started her shift. [RT 2206:5-8; 2207:17-20]. In 1977, a 500-gallon tank was installed outside the northwest side of the building for holding 1,1,1-TCA. [Ex. 23751 at p. 20 (Farmer Depo. at 63:21-64:5); Ex. 544 (permit)]. Plaintiff presented no evidence that the 500-gallon storage tank ever leaked.

After the degreasing process, lead frames were sent to the etcher which used ferric chloride. [Ex. 23751 at p. 20-21 (Farmer Depo. at 64:6-16); RT 2279:22-2280:2]. No 1,1,1-TCA was used in the etching process. [Ex. 23751 at p. 21 (Farmer Depo. at 65:1-2)]. Used acid went to a sump underneath the etcher, and then to a clarifier in the middle of the etching room which was in the same location as the former Ensign automotive pit. [Ex. 23751 at p. 21 (Farmer Depo. at 65:3-8); Ex. 10638 (depicting location of clarifier inside the building)].

In the entire time that Mr. Farmer worked at the 1551 Site, Arnold did not use any clarifier located outside the building. [Ex. 23751 at p. 21 (Farmer Depo. at 65:12-20)]. Arnold only used one clarifier on the 1551 Site – the clarifier in the center of the etching room. [Ex. 23751 at p. 25 (Farmer Depo. at 75:10-17); RT 2280:7-22 (Hopen testimony)]. Arnold did not use a clarifier located outside the building. [Ex. 23751 at p. 26 (Farmer Depo. at 79:22-80:6); RT 2280:7-22 (Hopen testimony)]. No evidence was presented as to who used clarifiers located outside the eastern boundary of the building on the 1551 Site.

The only testimony concerning plumbing/piping was that it exited the northern part of the building and led directly to the sewer lateral. [Ex. 23751 at p. 21 (Farmer Depo. at 65:21-24)]. There was no pipe going to the outside of the building from the stripper room. [Ex. 23751 at p. 32 (Farmer Depo. at 101:18-102:1)]. No evidence was presented of any plumbing leading from any

part of the building to any outside clarifier at the 1551 Site.

The next step in the process was stripping, the purpose of which was to remove film emulsion from the lead frame. [Ex. 23751 at p. 21 (Farmer Depo. at 65:25-66:4)]. During the stripping process, the sheets were placed in a tank containing "stripper" and then rinsed with water. [Ex. 23751 at pp. 21-22 (Farmer Depo. at 66:7-10)]. Stripping was performed on a raised platform, and drains in the stripping area led to the clarifier in the etching department. [Ex. 23751 at p. 31 (Farmer Depo. at 98:1-99:1); RT 2271:5-8].

Ms. Otero was employed by Arnold as a production worker starting in 1978. [RT 2202:1-6]. Ms. Otero personally worked with the stripper solution. [RT 2209:16-18; 2219:22-26]. Ms. Otero testified that the barrels of stripper used by Arnold were labeled "stripper." [RT 2218:20-26; 2219:22-24]. Throughout her employment, and on a weekly basis, Ms. Otero would pump stripper from barrels into the stripper tank, and would pump used stripper from the tank into empty barrels. [RT 2225:1-18; 2226:15-18; 2229:22-25]. Despite working with the stripper barrels and stripper solution for several years, Ms. Otero never learned what chemicals were in the stripper. [RT 2231:18-20].

In contrast, former Arnold employee Daniel Hopen testified that the barrels of stripper were labeled "perk" or "perchloroethylene." [RT 2258:1-19]. Mr. Hopen worked primarily in the etching department, where he worked with ferric chloride and no VOCs. [RT 2279:13-2280:4]. During his deposition, Mr. Hopen did not remember how the barrels of stripper were labeled. [RT 2281:3-12]. No evidence was admitted during trial which supported Mr. Hopen's assertions regarding "perk" or "perchloroethylene." Additionally, Hazardous Waste Manifests [Ex. 23532] which were admitted referred to Stripper and other chemicals not at issue in this case, but no documentary evidence was presented that supported a conclusion that the stripper used at Arnold contained PCE. The only constituent of concern referenced in Arnold's Hazardous Waste Manifests is 1,1,1-TCA. [E.g., Ex. 23532 at pp. 2-6].

There is no evidence that Arnold was ever cited by an administrative agency for pollution, or that Arnold ever exceeded a permit from SCAQMD or the Orange County Sanitation District.

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3. Post-Arnold Occupants

According to Arnold's expert Jon Rohrer, based on his review of Arnold's manifests, Arnold left the 1551 Site in approximately 1986. [RT 6908:9-14; Ex. 23532 at p. 46 (manifest from Arnold dated May 30, 1986)].

The evidence presented at trial and the experts for the District and Arnold agree that the identified subsequent occupants of the 1551 Site were engaged in manufacturing furniture. [RT 1015:16-22; 6908:15-25]. These furniture manufacturers included Eye Encounter and Woodmill Products. [RT 1994:25-1995:2; 6908:15-21]. The District's causation expert Dr. Richard Waddell testified that post-Arnold 1551 Site occupants used spray booths for applying finishes to their product, and would have used clarifiers to discharge waste to the sewer system. [RT 1015:23-1016:7]. Further, Dr. Waddell testified that the finishes used by these furniture manufacturers would contain solvents, although Dr. Waddell had found no indication as to what particular solvent was used. [RT 1016:8-13].

Based on Exhibits 23595, 23670, and 23671, *inter alia,* Mr. Rohrer opined that paints, strippers, and thinners were used on the 1551 Site after Arnold left the 1551 Site. [RT 6908:22-6909:10]. Also, in 1992, a tenant abandoned the premises and left the whole area in disarray. Exhibit 23595 is a letter dated April 16, 1992 from ERM/Enviroclean-West to Mr. Dave Dixon, Hazardous Waste Specialist with the Orange County Health Department. [RT 1998:25-1999:6] ERM is a reputable hazardous materials response company. [RT 1999:7-10; 6910:15-19]. ERM was retained by McLachlan Investment Company ("MIC") (the then owner) to respond to an emergency situation at the 1551 Site. [Ex. 23595 at p. 1]. By 1992, Arnold had been gone from the 1551 Site for several years, which was then owned by MIC. [RT 1997:2-16]. ERM reported to the Orange County Health Department that "[t]his facility was abandoned by the tenant. Waste materials (including hazardous materials and potentially hazardous materials) were improperly stored. These materials included paints, solvents, and acids." [Ex. 23595 at p. 1]. Additionally, approximately 100,000 gallons of standing water was present at the 1551 Site. [*Id.*] ERM tested the water and concluded it was not hazardous; however, there is no indication in the evidence whether ERM tested for chlorinated solvents. [*Id.*].

In April 1993, ERM, on behalf of Fullerton North Partners, advised the United States Environmental Protection Agency ("US EPA") of a change of identifying information for a generator of hazardous waste at the 1551 Site. [Ex. 23670 and 23671; RT 6910:20-6911:8]. Until then, the hazardous waste generator at the 1551 Site was using Arnold's generator information even though Arnold had left the 1551 Site several years prior. [RT 6911:12-15].

Additionally, Mr. Rohrer based his opinion on a letter dated April 29, 1993 from ERM to Ms. Robin Mather at Mosier and Company which Mr. Rohrer obtained from the public records of the Fullerton Fire Department. [Ex. 23596; RT 6911:24-6912:16]. The letter describes the scheduling of removal from the 1551 Site of the following waste: 18 drums of "paint related solids/debris;" 16 drums of "paint related liquids;" 2 drums of "photographic chemicals;" 1 drum of waste water; and 1 pail of aerosol wastes. [Ex. 23596 at p. 1].

B. Soil and Groundwater Investigations at the 1551 Site

1. 1994-1995 Investigation by Converse Consultants

By letter dated January 26, 1995 (almost ten years after Arnold left the 1551 Site), Converse Consultants Orange County ("Converse") prepared a "Summary Report of Additional Site Characterization" on behalf of Red Eagle Properties, the then-current owner of the 1551 Site. [Ex. 552 at p. 1].[2] According to the report, although soil samples were analyzed for multiple VOCs, only PCE was found under the southern of two clarifiers found outside the eastern boundary of the building on the 1551 Site. [Ex. 552 at pp. 7-10; RT 1011:23-1012:2]. Table 1 of the Report sets forth the results from 16 soil borings taken from the vicinity of the southern clarifier located outside and east of the 1551 E. Orangethorpe Building, labeled BH-1 through BH-13. [Ex. 552 at p. 10]. Some of the soil borings resulted in detections of PCE at 15 feet depth, which indicates a near source. [RT 1012:10-17]. The soil borings were drilled to 40 feet in depth, none reaching groundwater. [Ex. 552 at p. 10]. The highest concentrations of PCE were measured close to the southern clarifier and declined with greater distance from the clarifier,

[2] A number of exhibits, such as Ex. 552, were admitted into evidence pursuant to a stipulation among counsel for the sole purpose of evidencing soil, soil gas, or groundwater data and related items such as maps and logs.

which indicates a release at the location of the southern clarifier. [RT 1013:3-11]. There were no reported detections of PCE or any other VOC at or near the Northern Clarifier. [RT 6906:14-18].

In a report dated May 18, 1995, Converse reported additional site characterization activities at the 1551 Site. [Ex. 10335]. Specifically, Converse drilled two additional soil borings labeled BH-14 and BH-15 to a depth of 105 feet. [Ex. 10335 at pp. 16-17]. BH-14 was drilled approximately 15-30 feet east of the southern clarifier, and BH-15 was drilled approximately 15-30 feet northwest of the southern clarifier. [RT 6916:1-8]. Neither soil boring reached groundwater. [*Id.*]. These two one-time soil borings constitute the only soil data points deeper than 40 feet for the 1551 Site. [RT 6916:9-6916:11]. Interspersed among numerous nondetect readings, soil borings BH-14 and BH-15 resulted in detections of PCE, TCE, and 1,1-DCE. [Ex. 10355 at pp. 16-17]. All depths of both soil borings resulted in nondetect readings for 1,1,1-TCA except for an isolated reading of 6.8 parts per billion in BH-14 at 60 feet. [*Id.*].[3]

Converse conducted Soil Vapor Extraction (SVE) to remove VOCs from the shallow soil around the Southern Clarifier. In a report dated October 25, 1995, Converse reported the results of the soil vapor extraction system installed in the vicinity of the southern clarifier. [Ex. 554]. The extraction system operated from August 15, 1995 to November 27, 1995. [Ex. 554 at p. 5]. Dr. Waddell testified that Converse's SVE removed approximately 90 pounds of VOCs, 90 % of which was PCE. [RT 1049:14-19]. Influent concentrations were measured with a flame ionizing organic vapor analyzer calibrated to hexane. [Ex. 554 at p. 5]. The influent concentration at the initial startup of the soil vapor extraction system was 3,000 parts per million with lower influent concentrations thereafter. However, these readings provide no information regarding the specific compounds that were removed by the soil vapor extraction system, which may or may not have included the chemicals of concern in this litigation. [RT 7062:18-22]. The concentrations are merely field instrument readings, and there is no indication that Converse submitted samples for

[3] Arnold's expert Jon Rohrer testified on Plaintiff's cross-examination that VOC concentrations in deeper soil at BH-14 and BH-15 could have originated from rising groundwater levels depositing VOCs in the soil. [RT 7007:15-23 ("For the deeper depths, that may indicate where groundwater has come up to and brought contaminants from upgradient.")].

laboratory analysis to determine what compounds were removed. [RT 7062:18-26]

In 1995, the Santa Ana Regional Water Quality Control Board ("Regional Board") determined that Red Eagle had conducted sufficient soil remediation and did not need to conduct a groundwater investigation because Red Eagle had not operated the property and had purchased it from the RTC. [RT 1039:8-18]. No evidence was presented that Arnold was ever advised of the 1995 Converse activities at the 1551 Site or the Regional Board actions.

The District was aware as early as 1995 that there existed soil contamination at the 1551 Site, and that the Regional Board had requested a groundwater investigation relative to the 1551 Site. Chief Hydrogeologist Roy Herndon prepared a memorandum dated October 23, 1995 regarding the 1551 Site. [Ex. 22588; RT 5747:12-5748:7]. Mr. Herndon's memorandum states the owner of the 1551 Site "removed two clarifier tanks and found PCE and TCE in the soil." [Ex. 22588; RT 5749:17-25]. The memorandum further states that "RWQCB has requested two to three monitoring wells and undertake a groundwater investigation." [Ex. 22588; RT 5749:26-5750:6]. Mr. Herndon did not seek to obtain remediation of the soil at the 1551 Site despite this knowledge of conditions in 1995. [RT 7291:6-9].

2. <u>2007-Forward Investigation by The Reynolds Group</u>

After Converse's investigation and remediation activities at the outdoor southern clarifier at the 1551 Site, the next data set for the 1551 Site was obtained by The Reynolds Group ("TRG") in 2007 on behalf of the then-current owner (who had settled with and paid Plaintiff in this Action before purchasing the property) , 20 years after Arnold left the 1551 Site. Additionally, TRG's investigation was the first time that any data had been collected from under the footprint of the building on the 1551 Site. As reported in TRG's letter dated March 19, 2007, TRG obtained soil vapor samples from within and without the building footprint. [Ex. 561 at p. 6]. The sampling depth for all soil vapor samples was 5 feet. [Ex. 561 at pp. 11-13]. These soil vapor samples resulted in detections of PCE, TCE, 1,1,1-TCA, and 1,1-DCE. [Ex. 561 at p. 4]. Thereafter, TRG obtained several additional soil vapor samples from the 1551 Site, mostly from 5-15 feet below ground surface. [Ex. 10147 at pp. 144-146]. The deepest soil vapor sample obtained by TRG at the 1551 Site was 60 feet below ground surface. [*Id.*; RT 6916:14-6917:3]. Only five soil vapor

samples were taken from 60 feet below ground surface. [Ex. 10147 at pp. 144-146]. No additional evidence was presented as to soil or soil vapor testing at the 1551 Site.

3. Investigation by the District

Despite its 1995 knowledge of the soil contamination and work of Converse, the District has not taken any soil, soil vapor, or groundwater samples on or at the 1551 Site. On October 18, 2010, the District's counsel proposed soil gas locations on the 1551 Site at locations reviewed by Dr. Waddell, but the District did not perform the proposed soil gas investigation. [Ex. 23668; RT 1969:3-20]. Nor has the District installed a monitoring well on the 1551 Site to determine the groundwater impacts, if any, from the 1551 Site. [RT 1957:20-22]. The District's project manager, David Mark, testified that he has had "very limited involvement" in selecting groundwater sampling locations, and that the District's counsel and litigation experts have been responsible for selecting sampling locations. [RT 2475:8-14].

The District's only "investigation" relative to the 1551 Site consists of five one-time groundwater grab samples obtained offsite in May 2009 by the District's litigation expert Michael Marello. [Ex. 726aa; RT 1957:23-1958:2]. Mr. Marello did not select the location or depths of the grab samples; rather the locations and depths were selected by the District's attorneys in this matter, Miller Axline & Sawyer. [Ex. 26004 at p. 2 (Marello Depo. at 46:5-17; 47:20-48:2)].

Grab sample GW-1 was taken at 1601 E. Orangethorpe, approximately 240 feet east of the eastern boundary of the 1551 Site based on the legend included on Mr. Marello's aerial map. [Ex. 726aa at p. 4]. On July 12, 2010, the District's counsel proposed an additional grab sample location (reviewed by Dr. Waddell) much closer to the east of the 1551 Site, but the District never took a grab sample at that proposed location. [Ex. 23667; RT 1967:6-24]. Based on the legend included on Mr. Marello's aerial map, GW-3 and GW-4/4A were taken more than 240 feet west of the western boundary of the 1551 Site. [Ex. 726aa at p. 4]. GW-2 was taken approximately 150 feet northwest of the northwestern edge of the 1551 Site. [*Id.*].

The District commissioned a soil gas survey by a company called Tracer Research in 1988 for an area wide determination of soil gas concentrations. One of those samples, SG-371, was sampled southeast of the 1551 Site (at or near the 1601 East Orangethorpe Property operated by

Everest and Sundstrand). [RT 2679:18-2680:14]. Concentrations of 21 ppb of DCE and 39 ppb of TCA were found at 6 feet at SG-371. [Ex. 10147-183 (second to last line); RT 2680:15-21].

IV. ARNOLD IS ENTITLED TO JUDGMENT IN ITS FAVOR ON THE DISTRICT'S FIRST, SECOND, AND SIXTH CAUSES OF ACTION

A. Arnold is Entitled to Judgment on the District's First Cause of Action Because The District Did Not Prove by A Preponderance of the Evidence that Arnold Caused Groundwater Contamination or Pollution

1. The Evidence Showed that the Only VOC Arnold Used was TCA

(a) Arnold Used 1,1,1-TCA At The 1551 Site

Arnold's use of 1,1,1-TCA as a degreasing solvent is not disputed, and is confirmed by several pieces of evidence as set forth above. Notably, however, the District has not introduced any evidence regarding the amount of 1,1,1-TCA used by Arnold and Dr. Waddell had no opinion on the amount used. [RT 2716:14-17].

(b) Arnold Did Not Use TCE

The District presented two witnesses who asserted that Arnold historically used TCE at the 1551 Site—Mr. Hopen and Dr. Waddell. First, Mr. Hopen testified contradictorily that Arnold used TCE, 1,1,1 TCE and/or TCA in its degreasing operations. [RT 2250:6-8; 2290:4-15]. Mr. Hopen later testified that barrels of degreasing solvent were labeled "trichloroethylene, 1,1,1." [RT 2250:9-14]. Mr. Hopen then testified as follows:

"Q: Have you ever heard of trichloroethane?

A: I may have, but maybe it wasn't – I don't know if it was trichloroethylene or what you just said. I can't remember exactly.

Q: So sitting here today you don't remember today whether it was trichloroethane or trichloroethylene that was on the barrels.

A: Ethane, I think, trichloroethylene, yeah, with the 'L,' I believe.

Q: You can't remember one way or another?

A: Not unless I saw – not unless I saw – I remember the '1,1,1' on it.

Q: So you remember the 1,1,1 for sure?

A: Yes, and I remember there was a VOC."

[RT 2290:4-17].

Not surprisingly given the significant passage of time, Mr. Hopen admitted he was confused about the products used and that he could not remember what chemical name was written on the barrels. [RT 2290:4-15]. The one thing Mr. Hopen indisputably remembered was that the barrels were labeled "1,1,1." [RT 2290:4-17]. This testimony is notable because both Dr. Waddell and Mr. Rohrer confirmed that there is no chemical "1,1,1-TCE." in use in the Project Area [RT 2673:14-16; 6892:24-6893:1]. The only chemical at issue here with the chemical moniker "1,1,1" is TCA.

As further grounds to discount Mr. Hopen's testimony elicited on direct regarding Arnold's purported use of TCE, Mr. Hopen did not work at Arnold during the time that TCE was used in Southern California. Dr. Waddell testified that SCAQMD enacted regulations that restricted the use of TCE after 1976, and caused TCE users to switch to an alternative solvent. [RT 750:16-751:17]. Mr. Hopen began working for Arnold in 1978. [RT 2245:18-20]. Therefore, Mr. Hopen worked at Arnold after SCAQMD enacted regulations against TCE use.

Second, Dr. Waddell opined that TCE was used by Arnold historically based on Mr. Hopen's testimony and detections of TCE in the soil. [RT 2690:7-14]. This opinion is suspect for several reasons. Dr. Waddell confirmed that prior to rendering his opinions in the case he had not seen any documents which referenced TCE use at the 1551 Site. [RT 2007:9-13]. Indeed, Dr. Waddell has no opinion on the amount of TCE historically used at the 1551 Site. [RT 2716:11-13]. Mr. Hopen's testimony is discussed above and does not show TCE use by Arnold. Therefore, Dr. Waddell's opinion lacks foundation, factual support and documentary support. Indeed, while Dr. Waddell testified that Arnold used a number of chemicals [RT 1027:6-17], except as specifically noted herein, he did not testify as to the foundational support for those opinions.

Additionally, none of the permits for the degreasers admitted into evidence for the 1551 Site reference the use of TCE. [Ex. 537, 538, 539, 541, 542]. However, the SCAQMD did issue a permit to Arnold for a 550-gallon above-ground storage tank with use expressly limited to 1,1,1-

TCA. [Ex. 544]. This permit information indicates that Mr. Hopen's more credible testimony is that 1,1,1-TCA was used, not TCE. Moreover, an AQMD Facility Equipment List Report printed on September 27, 2006 lists several degreasers that used 1,1,1-TCA. [Ex. 559]. There is no mention in the list of TCE (or any VOC other than 1,1,1-TCA. [*Id.*].

Hazardous Waste Manifests admitted also refer only to 1,1,1-TCA. [Ex. 23532]. On direct, Dr. Waddell testified (in response to yet another leading question) that he had not seen evidence of a hazardous waste manifest generated by Arnold. [RT 3236:23-3237:13]. As pointed out on cross-examination, however, Dr. Waddell's own report and records showed he reviewed at least 6 hazardous waste manifests and had written in his pre-deposition report: "waste manifests from 1984 indicated disposal of 1,1,1-TCA..." [RT 3290:2-3291:1; 3293:3-22]. Thus, Dr. Waddell's testimony was impeached, again.

All credible evidence supports the fact that Arnold used only 1,1,1-TCA as a degreasing solvent, not TCE.

(c) Arnold Did Not Use PCE[4]

The only evidence the District presented regarding the use of PCE by Arnold was the testimony of Mr. Hopen, who testified that Arnold used barrels of stripper labeled "perk" or "perchloroethylene." [RT 2258:8-19]. No other employee testified that PCE was used at Arnold. No documents were admitted which showed PCE use by Arnold.

In light of Mr. Hopen's prior confusion and contradictory testimony regarding TCA and TCE, Mr. Hopen's testimony regarding the content of the stripper solution is called in to question and carries less weight than other, contrary evidence presented at trial. Ms. Otero, who, unlike Mr. Hopen, worked directly with the stripper solution and stripper barrels for years, testified that the barrels were labeled "stripper," not "perk" or "perchloroethylene." [RT 2218:20-26; 2219:22-

[4] As discussed below, per this Court's ruling under Kennemur, et al. [RT 1080-1084] Dr. Waddell was not permitted to contradict his opinion at deposition that the 1551 Site does not contribute to PCE contamination in the groundwater. Therefore, PCE contamination to groundwater (a threshold element of the District's case) is not at issue as to Arnold. Arnold nevertheless presents the following established facts and record citations as to non-use and non-release of PCE for completeness.

24]. In contrast, Mr. Hopen's primary job responsibilities were in the etching department where stripper was not used. [RT 2279:13-15]. Mr. Hopen never personally used the stripper solution. [RT 2290:2-3]. Nor does Mr. Hopen have any chemical training. [RT 2282:16-18].

Mr. Hopen's credibility is also diminished by several inconsistent statements between his deposition and trial testimony. Importantly, during deposition Mr. Hopen testified that he did not know what was written on the barrels of stripper, which directly contradicts his trial testimony. [RT 2281:3-12]. Additionally, at trial Mr. Hopen, who was called as a witness by the District, testified inconsistently on a variety of issues relating to Arnold's degreasing operations and his own personal involvement in those operations. [RT 2284:10-26; 2285:5-22; 2285:24-2286:25; 2287:4-19; 2287:20-2288:17].

Given the multiple inconsistencies in Mr. Hopen's testimony, the amount of time that has passed between Mr. Hopen's employment at Arnold and his testimony, the fact that the District's counsel paid for his travel from his home in St. Louis, Missouri [RT 2277:10-2278:1], Arnold's Uniform Hazardous Waste Manifests which do not reference disposal of PCE [Ex. 23495], and Ms. Otero's more credible and contrary testimony regarding the labeling of the stripper barrels, this Court should accord little to no weight to Mr. Hopen's testimony regarding Arnold's alleged use of PCE as a stripper.

Additionally, the mere presence of PCE in soil at the 1551 Site does not establish that Arnold used PCE. As previously detailed, furniture manufacturers that occupied the 1551 Site after Arnold left in 1987 used paints and solvents which may have contained PCE. Dr. Waddell acknowledged that post-Arnold 1551 Site occupants used spray booths for applying finishes to their product, and would have used clarifiers to discharge waste to the sewer system. [RT 1015:23-1016:7]. Further, Dr. Waddell acknowledged that the finishes used by these furniture manufacturers would contain solvents. [RT 1016:8-13]. In 1992, after Arnold had been gone from the 1551 Site for several years, the 1551 Site was abandoned by the tenant and left in a shambles. ERM reported to the Orange County Health Department that "[t]his facility was abandoned by the tenant. Waste materials (including hazardous materials and potentially hazardous materials) were improperly stored. These materials included paints, solvents, and

acids." [Ex. 23595 at p. 1]. Given these facts, there are serious doubts as to the source of PCE soil contamination at the 1551 Site, such that the presence of soil contamination at the 1551 Site is insufficient to show that Arnold used PCE.

As the District presented no other evidence regarding Arnold's alleged use of PCE at the 1551 Site, the District has failed to meet its burden of proving that Arnold used PCE at the 1551 Site. Accordingly, the Court should find that Arnold did not cause groundwater contamination or pollution of PCE, and that Arnold's operations have not and do not threaten to cause contamination or pollution of PCE in the future.

(d) Arnold Did Not Use 1,4-Dioxane at the 1551 Site

The District has not presented any evidence that Arnold used 1,4-dioxane in its operations. There is no evidence that Arnold used 1,1,1-TCA that included 1,4-dioxane as a stabilizer. Moreover, Dr. Waddell – the causation expert for the District – did not opine at trial that Arnold used 1,4-dioxane or contaminated soil or groundwater with 1,4-dioxane.

Given that the District has failed to present any evidence regarding Arnold's alleged use of 1,4-dioxane, the District has not proven under any standard, let alone by a preponderance of the evidence that Arnold used 1,4-dioxane at the 1551 Site.

2. The Record is Devoid of any Evidence of VOC Releases To Soil by Arnold

(a) Arnold Did Not Release 1,1,1-TCA or 1,1-DCE At The 1551 Site

1,1,1-TCA is the one chemical of concern that Arnold does not dispute it used at the 1551 Site. When 1,1,1-TCA enters groundwater, it breaks down to 20% 1,1-DCE and 80% acetic acid (vinegar), which is not a COC. [RT 584:7-9].

Notwithstanding Arnold's acknowledged use of 1,1,1-TCA, there is insufficient evidence that Arnold caused a release of 1,1,1-TCA or 1,1-DCE into soil. Most importantly, Plaintiff provided no evidence, other than 2007 soil vapor detections of certain chemicals in the shallow soil, to support its expert's opinions as to any discharges of VOCs at the 1551 Site, let alone by Arnold. Dr. Waddell opined that droplets from the degreasers at Arnold dispersed and came in contact with the concrete floor. [RT 1018:18-1019:6]. That testimony is contradicted by the

unrebutted percipient testimony in this trial, including the testimony of Ms. Otero who actually worked with the degreasers. [RT 2241:8-19]

The first soil vapor detections of 1,1,1-TCA under the building at the 1551 Site occurred in 2007, approximately 20 years after Arnold left the 1551 Site. Throughout those intervening years, several furniture manufacturers occupied the 1551 Site and used unknown solvents and paints with unknown constituents. There is clear evidence that in 1992, a tenant at the 1551 Site abandoned the premises and that waste materials (including paints, solvents, and acids) were improperly stored. [Ex. 23595 at p. 1]. Additionally, approximately 100,000 gallons of standing water were present at the 1551 Site. [Id.] ERM tested the water and concluded it was not hazardous; however, there is no indication whether ERM tested for chlorinated solvents. [Id.].

Mr. Rohrer credibly opined that paints, strippers, and thinners were used on the 1551 Site after Arnold left the 1551 Site. [RT 6908:22-6909:10]. Mr. Rohrer based his opinion, in part, on a letter dated April 29, 1993 from ERM to Ms. Robin Mather at Mosier and Company which Mr. Rohrer obtained from the public records of the Fullerton Fire Department. [Ex. 23596; RT 6911:24-6912:16]. The letter describes the scheduling of removal from the 1551 Site of the following waste: 18 drums of "paint related solids/debris;" 16 drums of "paint related liquids;" 2 drums of "photographic chemicals;" 1 drum of waste water; and 1 pail of aerosol wastes. [Ex. 23596 at p. 1].

Mr. Rohrer also opined that there is no evidence that Arnold released chemicals of concern (including TCA) to soil based on evidence (or the lack thereof) regarding Arnold's usage of VOCs, available soil data for the 1551 Site, and the unrebutted testimony from former Arnold employees that there was no release of degreasing solvent. [RT 6900:12-24]. In particular, no Arnold employee or anyone who was at the facility from 1961-1986 testified that there had been a spill of 1,1,1-TCA on the 1551 Site. [RT 6900:25-6901:4]. To the contrary, former employees testified there were no spills at the degreasers. [Ex. 23751 at p. 13 (Farmer Depo. at 42:8-18)]; RT 2240:5-24 (Otero testimony)]. Although Mr. Hopen testified at trial (without any details) that there were spills at a degreaser, his testimony was contrary to his prior deposition testimony in which he testified there were no such spills from a degreaser. [RT 2284:10-26].

Dr. Waddell's opinions regarding Arnold's alleged release of 1,1,1-TCA are not credible and deserve no weight and/or are outweighed by contrary evidence. Dr. Waddell opined, without citation to testimony or exhibits, that droplets from Arnold's degreasers dispersed onto the floor. [RT 1018:18-1019:2]. Dr. Waddell has never seen a degreaser that uses chlorinated solvents in operation, and has limited or no expertise with how solvent degreasers actually work. [RT 3047:17-3048:4]. Dr. Waddell's opinion is refuted by Ms. Otero's testimony that the floor around the degreasers was not slippery, and that she never saw mist coming out of the degreasers. [RT 2241:8-19]. The floor in the degreasing area only required routine cleaning with a mop and broom. [RT 2271:12-20].

Given the lack of foundation for Dr. Waddell's opinions, the evidence of subsequent occupants of the 1551 Site and Mr. Rohrer's substantiated expert opinion, there is insufficient evidence to find that the 1,1,1-TCA or 1,1-DCE found in shallow soil vapor on the 1551 Site originated from Arnold.

(b) Arnold Did Not Release TCE At The 1551 Site

Even if the District had established that Arnold used TCE at the 1551 Site, the District did not establish that Arnold released TCE.

As discussed above with respect to TCA, Dr. Waddell's opinions regarding Arnold's alleged release of TCE are not credible and deserve no weight and/or are outweighed by contrary evidence, see, *supra*. For example, as previously explained, Dr. Waddell opined, without citation to testimony or exhibits, that droplets from Arnold's degreasers dispersed onto the floor. [RT 1018:18-1019:2]. Dr. Waddell has never examined a degreaser that uses chlorinated solvents, and has limited or no expertise with how solvent degreasers actually work. [RT 3047:17-3048:4].

Next, Dr. Waddell opined that TCE contamination in soil at the *Johnson Controls* site at 1550 E. Kimberly (immediately north of the 1551 Site) came from Arnold's operations. [RT 1055:24-1056:9]. Dr. Waddell based this opinion in part on his conclusion that Johnson Controls did not use chemicals of concern in any significant volume. [RT 1058:9-20]. Dr. Waddell further opined on direct that Johnson Controls did not use degreasers, whereas Arnold used five degreasers. [RT 1059:13-15]. Specifically, Dr. Waddell testified as follows:

"Q If you just compared the number of degreasers between Arnold and Johnson Controls, what's the comparison?

A Five to nothing."

[RT 1059:13-15].

This direct testimony that Johnson Controls did not use degreasers is contradicted by documents in Dr. Waddell's own files in this case which he ignored on direct but was impeached with on cross [RT 1929:11-1932:6; Ex. 23696]. In fact, Dr. Waddell himself prepared a document that refers to several degreasers at the Johnson Controls site. [Ex. 23696].

Dr. Waddell also ignored the unrebutted testimony of former Johnson Controls employee John Welch, who testified that Johnson Controls historically used 3 or 4 degreasers at any one time at 1550 E. Kimberly. [Ex. 23756 at p. 6 (Welch Depo. at 50:4-13); Ex. 12290 (locations of Johnson Controls' degreasers at 1550 E. Kimberly)]. During cross-examination, Dr. Waddell admitted he testified incorrectly during direct regarding the number of degreasers used by Johnson Controls, as follows:

"Q But your testimony was, if you just compare the number of degreasers between Arnold and Johnson Controls, what's the comparison, you didn't say anything about those degreasers, did you?

[Objection overruled].

A I did not.

Q So, in fact, there were three degreasers at the Johnson Controls site.

A Apparently, yes."

[RT 1931:20-1932:4].

An internal memorandum by Project Manager Dave Mark that the District used to evaluate whether the Johnson Controls site was suitable for a settling basin also references Johnson Controls' use of degreasers. [Ex. 23662 at p. 1]. The District never shared this memorandum with Dr. Waddell.

Dr. Waddell's documents also refer to Johnson Controls' use of Safety Kleen 105. [*Id.*]. Johnson Controls used Safety Kleen 105 in its degreasers. [Ex. 23756 at p. 5 (Welch Depo.,

47:17-48:7); Ex. 10799 at p. 3 (460 gallons of Safety-Kleen 105 used in the year preceding October 31, 1994); Ex. 23495 at pp. 6-8 (uniform hazardous waste manifests]. As Mr. Rohrer explained, Johnson Controls' hazardous waste manifests used waste code "D040" which is a separate waste code used solely for TCE. [RT 6988:11-6989:13 (referring to Ex. 23495 at pp. 6-8)]. The District has admitted that Safety-Kleen 105 contains PCE, TCE, and 1,1,1-TCA. [RT 2037:20-2038:21 (the District's interrogatory response in *OCWD v. Sabic*, O.C.S.C. Case No. 30-2008-00078246); Ex. 23699 (District internal memorandum discussing Safety-Kleen 105)].[5] Indeed, as early as January, 2008, Dr. Waddell wrote a note that Safety-Kleen 105 was an issue in this case based on a conversation with Plaintiff's counsel. The only party that was mentioned in the trial regarding use of that product was Johnson Controls. [RT 2665:15-2666:24; Ex. 10138]

Dr. Waddell further opined that TCE released at the 1551 Site could have moved downward and laterally several hundred feet through the soil from the 1551 Site to the Johnson Controls site. [RT 1062:6-14]. This opinion that soil contamination at the Johnson Controls site originated from Arnold ignores and is also contradicted by the soil investigation results at the Johnson Controls site which Dr. Waddell ignored in order to provide his contrived opinion. According to Dr. Waddell, VOC soil contamination shallower than 50 feet is most likely the result of releases on the site itself. [RT 767:10-15]. A July 2006 "Facility Investigation Report" prepared by Entact regarding the southeastern area on the 1550 E. Kimberly reflects that five out of eight soil borings detected TCE at 4.5-5 feet; six out of eight soil borings detected TCE at 9.5-10 feet; and five soil borings detected TCE at 19.5-20 feet. [Ex. 23091 at p. 16]. In the soil column of monitoring well MW-2 located on the Johnson Controls site and screened in shallow groundwater, TCE was detected at 210 parts per billion at 4.5-5 feet, 100 parts per billion at 9.5-10 feet, 17 parts per billion at 19.5-20 feet, 320 parts per billion at 29.5-30 feet, and continuing levels of TCE detected all the way down to groundwater. [*Id.*; see also, Ex. 23071 at p. 30 (soil gas

[5] Additionally, in preparing his opinion, Dr. Waddell did not know that Standard Products occupied 1550 E. Kimberly before Johnson Controls, and that Standard Products manufactured automobile components. [RT 1984:16-1985:4; Ex. 404 at p. 3]. Standard Products' operations included stamping, painting, anodizing, and metal working. [Ex. 404 at p. 10]. Historically, especially in the 1950s, anodizing involved the use of VOCs such as TCE. [RT 2661:8-10].

samples showing shallow TCE contamination all around the main building)]. Thus, TCE soil contamination at 1550 E. Kimberly originates from the Johnson Controls site itself, not the 1551 Site.

Dr. Waddell's credibility was effectively impeached during cross-examination, especially as to TCE releases to soil at Johnson Controls. Dr. Waddell testified during direct examination that only soil vapor sample on the Johnson Controls property which detected TCE was SG-106. . [RT 1102:7-1103:2]. Dr. Waddell even presented this Court with a visual demonstrative bubble plot marked as Exhibit 750D showing only one soil vapor sample with TCE detections on the Johnson Controls property. [RT 1027:22-24]. However, during cross-examination Dr. Waddell admitted that his testimony and demonstrative were inaccurate and misleading for several reasons: (1) there were actually 10 different soil vapor readings on the JCI property where detections of TCE were found in the soil gas: (2) Dr. Waddell had previously produced and discussed at deposition two identical versions of the bubble plot which showed the 10 readings clearly; (3) the 10 readings of TCE in the shallow soil were accurate and supported by actual data in Dr. Waddell's files; and, (4) Dr. Waddell changed the bubble plot trial demonstrative to show only one data point, realized his "mistake" and never advised the Court or opposing counsel until he was cross examined. [RT 1911:22-1917:22]. This admittedly misleading testimony was not explained on re-direct and weighs heavily on Dr. Waddell's credibility as to TCE soil contamination allegedly caused by Arnold.

Dr. Waddell's credibility was also impaired by the consistent leading questions from the District's counsel. Indeed, Dr. Waddell seemed unable to testify without leading questions from the District's counsel. The Court sustained at least eight leading objections during the examination regarding the 155I Site [RT 1010:6; 1011:20-21; 1012:26-1013:1; 1020:19-20; 1035: 18-21; 1047:17-18; 1108:9-10; 1110:13-14], and admonished the District's counsel several times throughout this trial that such methods would affect the District's experts' credibility with the Court. [RT 2327:19-2328:2]. Too often, it appeared that the District's counsel, rather than Dr. Waddell, was actually testifying.

This impression was compounded by Dr. Waddell's excessive reliance on PowerPoint

presentations and demonstratives from which Dr. Waddell essentially tried to read. On more than one occasion, the Court sustained objections from defendants' counsel to prevent Dr. Waddell from simply reading his hearsay demonstratives into evidence. [*E.g.*, RT 697:22-698:10]. Moreover, on several occasions, Dr. Waddell needed to refer to PowerPoint presentations repeatedly in order to testify. [RT 799:3-800:1; 1310:9-1311:16; 1312:8-22; 5038:16-24 (criticizing Plaintiff's counsel for "past practice" of testimony describing PowerPoint presentations)].

Dr. Waddell was unequivocal across the Sites in this case that contaminants in shallow soil are most directly attributable to releases in that area close to where the COCs are found. [RT 2781:23-2782:10]. Given this testimony/opinion, the unrebutted evidence of TCE use by Johnson Controls at 1550 E. Kimberly, and the contamination in very shallow soil and soil vapor at the Johnson Controls site, the Court should discount Dr. Waddell's opinions as to Arnold in that regard.

A further concern is that Dr. Waddell intentionally omitted opinions directly relevant to this issue, crossing the line from expert to advocate. Dr. Waddell stated in his written report that Johnson Controls released PCE **and TCE** at its site, but on direct Dr. Waddell testified that Johnson Controls only released PCE. [RT 1920:3-1921:5].

Dr. Waddell's opinions are also impeached by his lack of experience in evaluating sites for possible soil contamination. Specifically, Dr. Waddell has never conducted an evaluation of a client-owned site to determine whether the site was contaminated. [RT 3032:1-5]. Dr. Waddell has never provided a client advice on the meaning of a nondetect in a soil sample. [RT 3032:16-19]. Dr. Waddell has never performed, supervised, or directed tests to identify the presence of dense nonaqueous phase liquid ("DNAPL"). [RT 3032:23-3033:1]. Dr. Waddell is not aware if there is a standard practice in the environmental consulting community that is used to delineate the extent of contamination is soil. [RT 3033:17-21].

Perhaps most disturbingly, the District's counsel asked Dr. Waddell to omit data from his analysis that would assist the defendants in establishing defenses (and Dr. Waddell apparently agreed to do so). [RT 2757:16-20]. Since 1985, Dr. Waddell had previously never been asked to

omit data from a report. [RT 2757:21-2758:9]. Apparently in compliance with this unprecedented request from the District's attorneys, Dr. Waddell's analysis omitted a groundwater sample of 2,300 parts per billion of TCE at MW-26S obtained in September 2005. [RT 2691:14-2694:7]. According to Arnold's expert Jon Rohrer, MW-26S is downgradient of sites occupied by responsible parties PCA Metals and OC Metals, who were not named as defendants by the District. [RT 6959:7-12]. Dr. Waddell considers PCA Metals and OC Metals to be major contributors to groundwater contamination, yet he omitted the largest TCE finding in this case which is downgradient of their facilities. [RT 2704:18-2705:12]. Mr. Rohrer opined that there can be a southwestern groundwater gradient from PCA Metals/OC Metals toward MW-26S, and MW-2 on the Johnson Controls property is southwest of MW-26S. [RT 6921:22-6922:16]. Dr. Waddell also testified that the 1551 Site is downgradient of the PCA Metals and OC Metals sites. [RT 2707:7-12].

Dr. Waddell's analysis also excluded findings from three bore holes drilled by AC Products that are upgradient of the 1551 Site. [RT 2694:12-21]. One of the soil borings that Dr. Waddell excluded from his analysis – B-61 – showed PCE concentrations of 100 parts per billion. [RT 2695:15-21]. Thus, Dr. Waddell's trial testimony excluded data that directly refutes the District's claims against Arnold.

Based on all of the foregoing, Dr. Waddell is not a eredible witness as to his opinions related to Arnold's release of constituents of concern, and his testimony is entitled to no weight, and/or other contradictory evidence carries more weight.

Arnold's expert Jon Rohrer opined that there is no evidence that Arnold released chemicals of concern (including TCE) to soil based on evidence regarding Arnold's usage of VOCs, available soil data for the 1551 Site, and testimony from former Arnold employees. [RT 6900:12-24]. Mr. Rohrer based his opinion in part on the fact that there is no evidence of TCE use by Arnold [see, e.g., Ex. 23495 (uniform hazardous waste manifests)], there is no evidence of a release of TCE at the 1551 Site and there is limited soil data for the 1551 Site [RT 6903:24-6904:10].

Based on all the foregoing, the evidence supports Mr. Rohrer's conclusions that Arnold did

not release TCE at the 1551 Site..

(c) Arnold Did Not Release PCE At The 1551 Site

Even if the District had established that Arnold used PCE at the 1551 Site, the District did not establish that Arnold released PCE into soil. In 1995, Converse found PCE in the immediate vicinity of an outdoor southern clarifier. [Ex. 552]. However, although Dr. Waddell speculated as to the use of the southern clarifier [RT 1032:15-1033-7; 1021:16-1022:1], the only percipient witnesses, Messrs. Farmer and Hopen, both testified that Arnold did not use any outdoor clarifier. [Ex. 23751 at p. 26 (Farmer Depo. at 79:22-80:6); RT 2280:7-22]. Rather, Arnold used one clarifier located inside the building in the etching department. [Ex. 23751 at p. 25 (Farmer Depo. at 75:10-17); Ex. 10638 (depicting location of clarifier inside the building); RT 2280:7-22]. The District has not presented any evidence that contradicts the testimony of Messrs. Farmer and Hopen. Further, the record is devoid of any testimony or documentary evidence as to **any** entity using the southern clarifier.

As previously stated, several furniture manufacturers operated at the 1551 Site after Arnold left in 1987. Dr. Waddell opined that those furniture manufacturers would use a clarifier in their business operations for discharging effluent to the sewer. [RT 1015:23-1016:7]. Given their use of solvents as previously detailed, it is entirely possible that one or more of these furniture manufacturers used the outdoor southern clarifier. In any event, the District has failed to meet its burden of proving that the contamination found by Converse is attributable to Arnold rather than one or more of the subsequent occupants.

Arnold's expert Jon Rohrer opined that there is no evidence that Arnold released chemicals of concern (including PCE) to soil based on evidence regarding Arnold's usage of VOCs, available soil data for the 1551 Site, and testimony from former Arnold employees. [RT 6900:12-24]. This evidence was uncontested.

(d) Arnold Did Not Release 1,4-Dioxane At the 1551 Site

There is no soil or soil vapor data from the 1551 Site that shows contamination from 1,4-dioxane. [Ex. 10147 at pp. 30-32; pp. 144-146]. Dr. Waddell, the District's causation expert, has not opined that Arnold released 1,4-dioxane into soil. Accordingly, Arnold did not release 1,4-

dioxane into soil.

3. VOC Releases To Groundwater

(a) Arnold Did Not Release 1,1,1-TCA or 1,1-DCE Into Groundwater

As previously stated, there is insufficient evidence to conclude that Arnold released 1,1,1-TCA or 1,1-DCE at the 1551 Site. Yet, even if Arnold did release 1,1,1-TCA or 1,1-DCE, there is insufficient evidence to conclude that Arnold released 1,1,1-TCA or 1,1-DCE into groundwater.

There is no groundwater data at the Arnold 1551 Site. [RT 1958:16-18]. The only groundwater data collected by the District in reference to the 1551 Site are off-site one-time grab samples GW-1, GW-2, GW-3 GW-4, and GW-4A. [Ex. 726aa; RT 1957:23-1958:2]. GW-1 is located east of the 1551 Site, and the other grab samples are located generally west of the 1551 Site. The sampling locations and depths were selected by the District's counsel, not by counsel's experts or the District. [RT 2475:8-14; Ex. 26004 at p. 2 (Marello Depo. at 46:5-17; 47:20-48:2)].

According to Dr. Waddell, one-time grab samples are not useful in detecting a pattern in groundwater quality because they are only tested once in a very limited area of the saturated zones. [RT 656:6-8; 815:22-816:6]. Dr. Waddell's opinion is that, in order to develop a scientific understanding about groundwater movement, it is helpful to have "thousands of sampling points" rather than even a dozen monitoring wells (which is not even the case here). [RT 656:9-657:24]. Here, the District did not install a single monitoring well to determine whether the 1551 Site is contributing to groundwater contamination.

Thus, Dr. Waddell's credibility regarding Arnold's purported impact to groundwater is impaired by Evidence Code § 412, which provides, "If weaker and less satisfactory evidence is offered when it was within the power of the party to produce stronger and more satisfactory evidence, the evidence offered should be viewed with distrust." Dr. Waddell and the District relied on weaker and less satisfactory evidence than it could have presented, which should lead to distrust of Dr. Waddell's opinion. Because the District had within its power to present stronger and more satisfactory evidence, the evidence that the District and Dr. Waddell presented is looked on with disfavor.

Regarding the groundwater gradient surrounding the 1551 Site, Mr. Rohrer opined that the groundwater gradient as determined from the monitoring well network installed by AC Products is such that groundwater flows slightly north of west from the AC Products site (located approximately two miles east of the 1551 Site). [RT 6921:2-16]. At the same time, the groundwater gradient has at times historically been south of west from the area of PCA Metals/OC Metals sites located northeast of the 1551 Site. [RT 6922:1-10; Ex. 23653 at p. 7 (aerial map of 1551 Site and surrounding sites, including AC Products and PCA Metals/OC Metals)]. Other influences on groundwater gradient include: AC Products' extraction well P-03 located southwest of the 1551 Site; a storm drainage ditch that runs along Kimberly Avenue; Carbon Creek; and the District's recharge operations to the east of the 1551 Site. [RT 6925:18-6926:18].

Because the groundwater gradient surrounding the 1551 Site is variable, GW-1, which is 240 feet east of the 1551 Site, at any point in time may or may not have been upgradient of the grab samples located west of the 1551 Site. [RT 6930:15-6931:5]. Thus, it cannot be determined from the District's one-time grab samples whether the 1551 Site contributed to the increased groundwater contamination that was detected at the grab samples located west of the 1551 Site by a comparison of GW-1 to "downgradient" wells. [*Id.*].

In any event, the concentrations of 1,1,1-TCA and 1,1-DCE at GW-1 were substantially the same as all the District's grab samples taken to the west of Arnold. [Ex. 10147 at pp. 194-195]. Thus, even if the District's grab samples were reliable evidence of the 1551 Site's impact to groundwater, they do not evidence a groundwater release of 1,1,1-TCA or 1,1-DCE.

The District also relies on groundwater data from Johnson Controls monitoring wells MW-1 and MW-2, and District monitoring well FM-5 (all screened in shallow groundwater). However, the fact that MW-1, MW-2, and FM-5 are in a straight line relative to each other means that there is uncertainty regarding groundwater flow direction at those wells. [RT 1953:4-21]. Thus, the results from these monitoring wells are not useful in establishing a release of constituents of concern from the 1551 Site.

Accordingly, the District has not met its burden of establishing that Arnold released 1,1,1-TCA or 1,1-DCE to groundwater.

(b) Arnold Did Not Release TCE Into Groundwater

As previously detailed, Arnold did not use TCE, and even if Arnold did use TCE, there is insufficient evidence to hold that Arnold released TCE to soil. Thus, Arnold could not have released TCE into groundwater based on these two findings of fact. Yet even in the absence of these factual findings, the District has not met its burden of proving that Arnold released TCE into groundwater.

All the limitations in groundwater data discussed above in connection with 1,1,-TCA apply equally to TCE.

The concentration of TCE at GW-2 was higher than the concentration of TCE at GW-1. [Ex. 10147 at p. 194]. However, given the scarcity of groundwater data, Mr. Rohrer credibly opined, based on all the data, that the increase in TCE concentration cannot be attributed to the 1551 Site. [RT 6930:15-18]. Because the groundwater gradient surrounding the 1551 Site is variable, GW-1 at any point in time may or may not have been upgradient of GW-2. [RT 6930:15-6931:5]. Thus, it cannot be determined from the District's one-time grab samples whether the 1551 Site contributed to the increased groundwater contamination that was detected at GW-2. [*Id.*].

Significantly, GW-2 is close to and downgradient (here west/southwest) of where Johnson Controls MW-2 was located and destroyed two years earlier. [Ex. 23653-8.] Johnson Controls well MW-2 had detected TCE concentrations of 290 ppb in May 1, 2007. [Ex. 10147 at p. 194]. Given the west/southwest gradient, it is more likely than not that the TCE detected at MW-2 in 2007 travelled to GW-2 in 2009 (at concentrations of 55.7 and 85.7 ppb), than Dr. Waddell's unsupported assertions that TCE from the 1551 Site were found at GW-2. [Ex. 10147 at p. 194]

The TCE detected at GW-2 could also have originated from PCA Metals/OC Metals. TCE contamination from PCA Metals/OC Metals is well documented. [Ex. 22014 (Fullerton City Fire Dept. permit reflecting storage of 1,000 gallons of TCE at OC Metals); Ex. 726pp at p. 60 (groundwater samples), p. 43, 46, 57, 59, (soil samples), p. 58, 61 (soil gas samples); Ex. 434 at p. 6 (groundwater samples)]. At the PCA site, TCE was detected in shallow soil at 500 and 690 parts per billion. [Ex. 10147 at p. 36 (samples A-15 and A1-5 at boring A-13)]. AC Products'

monitoring well MW-26S is downgradient of the PCA Metals/OC Metals sites, and on September 22, 2005 detected TCE in shallow groundwater at 2,300 parts per billion. [Ex. 23428 at p. 21; RT 6959:7-6961:21]. DTSC investigated and mitigated the OC Metals site because it posed a hazard to human health and the environment. [Ex. 23444]. Indeed, in 1999 – a full five years before the District filed this lawsuit -- the District's consultant Phillip Miller reviewed the District's files regarding PCA and OC Metals and found groundwater data showing that PCA/OC Metals contaminated groundwater with TCE. [RT 5101:22-24 (Mr. Miller prepared report in 1999); 5108:2-5109:10]. The District's own files reflected that on December 17, 1992, groundwater monitoring wells at the PCA/OC Metals sites detected TCE concentrations at 60.9 parts per billion and 249 parts per billion. [RT 5109:3-10].

There are other sites upgradient of the 1551 Site where there was use and/or release of TCE, but, like the 1551 Site, there is insufficient information to determine whether TCE from those sites reached groundwater. [Ex. 22264 at p. 10-11 (lab analysis for Jonathan Manufacturing reflecting TCE soil concentrations at 1,300 parts per billion); Ex. 23566 (at 1601 E. Orangethorpe – directly east of the 1551 Site – a TCE degreaser was operating outside of the building in 1973); Ex. 23567 (permit issued by the Air Pollution Control District in 1973 for Everest to operate TCE degreaser at 1601 E. Orangethorpe)]. There is virtually no soil data at the 1551 Site. The 1300 parts per billion finding at Jonathan Manufacturing is more than 10 times higher than the 1 deep TCE data point east of the 1551 Site building.

Given the limited probative value of the one-time grab samples taken by the District, there is insufficient evidence to conclude that the different TCE concentrations detected by the grab samples at GW-1 and GW-2 show a release at the 1551 Site or were caused by a release to groundwater at the 1551 Site.

Regarding the monitoring wells relied upon by the District, when FM-5 was drilled, TCE was detected in the following concentrations: 220 parts per billion at 31 feet; 130 parts per billion at 60.5 feet; and 33 parts per billion at 96 feet. [Ex. 23662 at p. 3]. Dr. Waddell opined that Moore Business Forms was the source of the TCE found in FM-5. [RT 1940:10-23]. Additionally, as previously detailed, TCE was found throughout the soil of the Johnson Controls

site where MW-1 and MW-2 are located. [Ex. 23678 at pp. 25 and 31]. TCE was found throughout the soil column of MW-2. [Ex. 23091 at p. 16]. The soil vapor extraction system at Johnson Controls removed 2,547 pounds of VOCs. [Ex. 23157].

Contrary to his trial testimony, in his expert report Dr. Waddell stated that Johnson Controls is a likely source to groundwater of PCE, TCE, and DCE, and that it is difficult to discern the impacts from 1550 E. Kimberly where Johnson Controls operated. [RT 1985:5-13; Ex. 10146 at p. 11].

Given the limited probative value of FM-5, MW-1, and MW-2 for determining groundwater flow, and the TCE contamination originating from PCA Metals/OCMP, Moore Business Forms and Johnson Controls, there is insufficient evidence to find that these monitoring wells detected TCE in groundwater originating from the 1551 Site.

(c) Arnold Did Not Release PCE Into Groundwater

Dr. Waddell testified during deposition that the 1551 East Orangethorpe site had not impacted groundwater with PCE. [RT 1081:5-1082:2]. At trial on April 17, 2012, the District's counsel attempted to elicit testimony from Dr. Waddell to the effect that Arnold was responsible for releases of PCE into groundwater. The Court sustained Arnold's objection to Dr. Waddell's testimony under *Kennemur v. State of California* (1982) 133 Cal. App. 3d 907 (and follow-on cases), because during deposition Dr. Waddell had testified that Arnold was not responsible for PCE releases into groundwater. [RT 1085:2-12].

Therefore, Arnold did not release PCE into groundwater.

(d) Arnold Did Not Release 1,4-Dioxane Into Groundwater

As previously stated, there is no evidence that Arnold used 1,4-dioxane or released it into soil. Additionally, there is insufficient evidence to conclude that Arnold released 1,4-dioxane into groundwater.

Dr. Waddell offered no opinion regarding any release by Arnold of 1,4-dioxane into groundwater. Without expert opinion establishing causation, the District cannot meet its burden of proving that Arnold contaminated groundwater with 1,4-dioxane.

Furthermore, the lack of meaningful groundwater data discussed in connection with TCE

equally applies to 1,4-dioxane. GW-3 detected higher levels of 1,4-dioxane than GW-1. [Ex. 10147 at p. 194]. However, as opined by Mr. Rohrer, the District's grab samples are not sufficient to establish that GW-1 was upgradient of GW-3 at the time the grab samples were taken. The 1,4-dioxane detected at GW-3 could have originated at AC Products, where 1,4-dioxane was measured at 35 parts per billion in groundwater. [Ex. 12636 at p. 16; RT 5159:20-5160:7]. This groundwater data for 1,4-dioxane was the highest reading throughout all of AC Products' monitoring well system in 2001. [RT 5160:8-11]. Additionally, the 1,4-dioxane detected at GW-3 could have originated from Vista Paint at 2020 East Orangethorpe, which Dr. Waddell admitted released 1,4-dioxane into groundwater. [RT 1983:3-22]. Specifically, Dr. Waddell opined that Vista Paint was responsible for a groundwater detection of 691 parts per billion of 1,4-dioxane. [*Id.*]. Dr. Waddell confirmed that the 1551 Site is downgradient of the area of the Vista Paint site and release. [RT 1584:1-14.]

As reflected by groundwater data from AC Products' monitoring well MW-24S (screened in shallow groundwater), there is a regional problem with 1,4-dioxane. At MW-24S on March 12, 2009, 1,4-dioxane was detected at 7.2 parts per billion. [Ex. 23279 at p. 3]. MW-24S is cross-gradient of the Arnold site, meaning that MW-24S is neither upgradient nor downgradient of the 1551 Site. [RT 6956:7-24].

The Court should also find significance in the District's then-project manager's statement in an April 16, 2003 letter to Kimberly Clark that, among other things, 1-4 dioxane can be found in common household products such as liquid soaps at up to 300,000 ppb. [Ex. 11099-3]. The District apparently did not investigate to determine if these products were the source of the 1-4 Dioxane in the Project Area. [RT 4665:4-18]

4. <u>Arnold Is Entitled To Judgment on the District's First Cause of Action</u>

In conclusion, there is no evidence that Arnold caused groundwater contamination or pollution, or that its operations created a condition that threatens to cause contamination or pollution in the future. As a result, the District failed to meet its burden of proving the cause of action based on the OCWD Act.

B. Arnold is Entitled to Judgment of the Second Cause of Action Because Arnold Did Not Release a Hazardous Substance Which Contaminated Groundwater

1. The District Has Failed To Meet Its Burden of Proof Under the HSAA

As explained above, Arnold did not use PCE, TCE, or 1,4-dioxane. Thus, Arnold did not cause the District to incur response costs relative to these constituents of concern.

Additionally, as detailed above, there is insufficient evidence that Arnold released any constituent of concern at the 1551 Site, including 1,1,1-TCA or 1,1-DCE. Finally, as detailed above in Section (A)(4), there is insufficient evidence that Arnold released any constituent of concern into groundwater.

Because there is no viable, admissible evidence that Arnold caused a release of PCE, TCE, 1,1,1-TCA, 1,1-DCE, or 1,4-dioxane into the environment, Arnold cannot be liable under the HSAA. The District, therefore, has not met its burden of proving that Arnold is liable for response costs under the HSAA.

C. The District's Damage Claim [ALTERNATIVE SECTIONS IN CASE THE COURT FINDS A GROUNDWATER RELEASE CAUSED BY ARNOLD]

At trial, the District claimed entitlement to damage consisting of costs incurred for installation of monitoring wells, extraction wells, pipeline design, a remedial investigation and feasibility study, and CEQA costs. The District presented this alleged damage evidence through the testimony of David Mark, Chris Olsen, Adam Hutchinson and Greg Woodside on June 29, 2012. The testimony was far from clear, and the District has yet to present a total damage figure. In any event, for the multiple reasons discussed below, both the damage claim as a whole, as well as individual elements of the damage claim are not recoverable.

1. Arnold Did Not Cause the District To Incur Remediation Costs

Even if Arnold is responsible for a release of constituents of concern at the 1551 Site, the District has not established that it has actually incurred costs in cleaning up or containing any such groundwater contamination.

The District's project manager David Mark testified that the goal of the NBGPP is to treat groundwater contaminant concentrations that exceed 5 to 10 times the MCL or reporting level.

[RT 2079:12-15]. The only extraction well that credibly has a capture zone such that it is downgradient of the 1551 Site is EW-3. [RT 1106:19-1107:9]. For example, in supplemental responses to Arnold's Requests for Admission, Set One, the District admitted there is no evidence that Arnold contributed to soil or groundwater contamination upgradient of EW-1 or in the area encompassed by AC Products' groundwater plume as depicted on the District's plume map. [Ex. 23753]. Indeed, Dr. Fogg's particle tracking map shows a flow path from the 1551 Site directly to the location of EW-3. [Ex. 10000-43].[6] At EW-3, the District's data shows that 1,1,1-TCA and 1,1-DCE are below the MCLs of 200 and 5 parts per billion, respectively. [Ex. 953 at p. 11]. Concentrations of TCE have been measured above the MCL of 5 parts per billion, but not 5 to 10 times higher than the MCL. [Ex. 953 at pp. 10-11]. Thus, based on the District's own treatment goals, any release by Arnold of these constituents could not have caused the District to incur remediation costs.

PCE concentrations at EW-3 have been measured higher than 5 to 10 times MCL. [Ex. 953 at p. 10]. However, the 1551 Site did not impact groundwater with PCE. [RT 1081:5-1082:2].

Thus, because concentrations of 1,1,1-TCA, 1,1-DCE, and TCE at extraction well EW-3 are lower than the District's stated treatment goals, and because Arnold is not responsible for PCE releases to groundwater, the District cannot establish it incurred any costs in cleaning contamination caused by Arnold.

2. <u>The District's Internal Labor and Overhead Costs Are Not Recoverable</u>

The District included internal labor and other overhead charges in its damage claim. Trial Exhibit 1028, which Dave Mark and Adam Hutchinson both relied on in their testimony as to the District's incurred costs, includes thousands of line items labeled, for example "salaries," "workers' comp," "BEN Retirement," "BEN Medicare," "Employer Life," "Employer Health,"

[6] This particle tracking is provided as an example for illustrative purposes. Obviously, Arnold does not agree that particles of TCE were actually released at the 1551 Site.

etc.

Although the District offered no witness testimony to explain the entries on Exhibit 1028, on cross-examination it became clear that much of the exhibit consists of line items describing internal labor and other overhead costs of the District. The District would have incurred these internal overhead costs as part of its ongoing operations whether or not it was litigating a damage claim against Defendants in this case. [RT 4025:20-4027:3] In fact, Dave Mark testified at trial that no employee of the District would have been laid off if the NBGPP did not exist [RT 4027:4-9]. Additionally, during the June 28, 2012 argument on the District's request for judicial notice of inadmissible cost evidence, District counsel Mr. Connor repeatedly stated that the District was not requesting labor costs as damages. [RT 4240:16-20; 4247:21-26]. To the extent the District is relying on those sections of Exhibit 1028 or any other evidence that constitutes internal labor or overhead, those costs are not recoverable in this action.

The total amount of non-recoverable internal labor costs identified by the District in Exhibit 1028 is **$582,167.65**. This figure was derived from adding all instances in Exhibit 1028 of salaries, benefits, and workers compensation costs. This figure does not include any outside vendor costs, supplies, construction costs, or any costs unrelated to the employment of District personnel.

3. Arnold's Potential Allocated Share of Liability at EW-3 Assuming the District Proves Liability and the Need for the Project in General and EW-3 Specifically

(a) Allocation of Costs by Extraction Wells

The District presented no evidence regarding Arnold's allocated share of responsibility for the District's costs allegedly already incurred in cleaning groundwater.

Arnold's expert Jon Rohrer provided a reasonable basis for potentially estimating the mass discharge for the 1551 Site. In order to calculate the potential mass discharge, Mr. Rohrer estimated the mass modeled to be extracted at EW-3 by using modeling work conducted by the District's expert Graham Fogg, and used the District's grab sample results to estimate the mass discharge for the 1551 Site. [RT 6932:24-6933:4]. The limitations to Mr. Rohrer's estimates are

only related to the quality of Dr. Fogg's modeling and the limitations on the data set obtained by the District relative to the 1551 Site. [RT 6933:10-13].

The denominator for using Mr. Rohrer's calculations is the total mass that is predicted at EW-3 from Dr. Fogg's work, and the numerator is the hypothetical discharge from the 1551 Site. [RT 6933:14-21]. In determining the mass discharge calculation elements, Mr. Rohrer considered the hydraulic conductivity at the 1551 Site, the groundwater gradient, and saturated thickness of the aquifer. [RT 6933:22-6934:2; Ex. 23213 (basis for Mr. Rohrer's opinion)].

Table B of Ex. 23654 presents the mass per day figures derived from Dr. Fogg's modeling output for two model runs. [RT 6935:8-10]. Both runs are calculated to run for 30 years. [RT 6941:13-14]. In Table B, the denominator for Mr. Rohrer's allocation calculation is presented in the column labeled "Chemical Mass While PCE > RL," and for run FL-S1 has a value of 476,547 grams (which one can use as the denominator). [RT 6941:26-6942:5]. In this model, PCE would be above MCL for approximately 21 years. [RT 6942:11-12]. Mr. Rohrer selected PCE as the benchmark for his allocation calculation because PCE is the contaminant that would be above MCL for the longest period of time in Dr. Fogg's calculation.

Tables A1 and A2 at Ex. 23654 present information about the potential contribution mass discharge numbers for the 1551 Site. [RT 6934:25-6935:1]. Tables A1 (arithmetic average) and A2 (logarithmic average) of Ex. 23654 present information about the potential contribution mass discharge numbers for the 1551 Site. [RT 6934:25-6935:1]. Mr. Rohrer explained that a logarithmic average is more accurate and appropriate for this analysis. [RT 6944:9-6945:18] Table A-2 presents the estimated mass discharge of VOCs from the 1551 Site at 4.95 grams, assuming that the concentrations at GW-2 through GW-4A are attributable to the 1551 Site. [6946:13-20]. Furthermore, Mr. Rohrer's calculation reflects the concentration of VOCs at GW-2 through GW-4A that are greater than the concentration at GW-1. [RT 6944:16-6945:1]. Mr. Rohrer explained that he had conducted such calculations before, in explaining to a Regional Water Quality Control Board the risk posed from a particular site to a treatment well. [RT 6943:22-6944:4].

To arrive at the mass discharge figure for the 1551 Site over the period of time that 1551

Site would hypothetically impact groundwater at EW-3 (i.e., the numerator), one would simply multiply 4.95 by 365 (days per years) and then by the length of time there may be an impact to groundwater. [RT 6946:21-6947:7]. For example, using Dr. Fogg's model run FL-S1, TCE would be above MCL at EW-3 for 11.84 years. [Ex. 23654 a p. 5]. Using this length of time results in an estimated 21,391.92 grams of contaminants from the 1551 Site being extracted at EW-3 (4.95 x 365 x 11.84).

Therefore, the allocation calculation for the 1551 Site's share of VOC's treated by EW-3 using Dr. Fogg's model run FL-S1 is **4.45%** (21,391.92 total grams from the 1551 Site divided by 476,547 total grams of VOC's extracted at EW-3). Under this allocation, Arnold would be responsible for 4.45% of clearly-defined VOC related costs for EW-3 (such as drilling costs), but would not be responsible for any clearly-defined costs related to any of the other four already drilled extraction wells.

The District's drilling costs related to EW-3 total $244,329.20. [Ex. 938 at. p. 2 (summary) and 8-9 (itemized costs)]. The District also paid $211,000 for the easement deed for EW-3, and $1,500 for a title report. [Ex. 938 at p. 2]. Thus, the District's total costs for EW-3 total $456.829.20. Under this allocation, Arnold's potential share of costs related to EW-3, assuming liability, (i.e., 4.45%) totals **$20,557.31, which is actually an overstatement given that the District drilled the well for more than just VOC treatment**.

For costs that are not specifically related to any extraction well, Arnold would be responsible for 4.45% of 20% of those costs (as there are five extraction wells). Thus, Arnold is responsible for 0.89% (.2 x .0445) of costs that are not specifically related to a particular extraction well.

As more fully set forth in Defendants' Closing Trial Brief, the District introduced evidence of total project costs totaling $3,501,418.48. Of these costs, $876,114 of expenditures Dave Mark identified on Exhibit 938 for monitoring wells, exploratory borings and costs relating thereto are "investigatory" under Section 8 (a) of the OCWD Act and thus not recoverable. As stated *supra*, the District also incurred a further $582,167.65 in non-recoverable internal labor costs. A further $1,825,505.32 constitutes extraction well costs [Ex. 938 at p. 2], which were already allocated as

described above. Thus, $217,631.51 in non-extraction well costs remain to be allocated to Arnold. Under the described allocation, Arnold is responsible for 0.89% of these costs, or **$1,936.92**. If the non-recoverable CEQA costs are allocated, Arnold's proportionate share would be substantially reduced.

(b) Allocation of Costs By Total Mass Discharge to Groundwater

Allocation could be made another way as evidenced by the coupling of Mr. Rohrer's opinions and mass discharge calculation coupled with Mr. Lambie's analysis of the District's treatment system. As there are 453.592 grams in one pound, under Mr. Rohrer's analysis of Dr. Fogg's work and his own mass discharge calculation, EW-3 will extract 47.1611492 pounds of VOCs from the 1551 Site (21,391.92 total grams from the 1551 Site multiplied by 453.592 grams per pound). The total mass of PCE, TCE and DCE within the project area is 29,221 lbs. (11,792 lbs. PCE, 13,772 lbs. TCE, and 3,657 lbs. DCE). [Ex 15912 at p. 75]. Thus, assuming that the District's grab samples actually reflect contamination originating from the 1551 Site, the 1551 Site will contribute approximately 0.16% of the VOC mass.

To determine Arnold's allocated share of the District's groundwater remediation costs, the Court must first determine what portion of those remediation costs are related to VOCs (rather than perchlorate, nitrate, or 1,4-dioxane). The costs for perchlorate and nitrate treatment are substantial and represent 25.9% of the project's costs. [RT 6546:13-6547:6]. In addition to VOCs allegedly contributed by the defendants, the project also seeks to remediate TCP and DCA contamination. [RT 2087:1-5]. There is no allegation or evidence that any of the defendants – including Arnold -- released or are liable for TCP or DCA contamination. Under Lambie's stand alone cost allocation analysis, ten percent of the project's costs are for remediation of TCP and DCA. [RT 6547:11-22]. Approximately 11.1% of the project's costs are solely for 1,4-dioxane cleanup. [RT 6546:2-5].

Thus, only 53% of the costs of the NBGPP are attributable to PCE, TCE, or 1,1-DCE. Arnold's allocated share of the District's remediation costs is 0.16% of 53% of the total remediation costs, or 0.0848% of the total remediation costs. Without discounting the District's costs for which no Defendant is liable (such as labor and CEQA), Arnold's liability would be less

than $3000.

D. Because There is No Evidence That Arnold Caused or Threatens to Cause Groundwater Contamination or Pollution, Arnold is Entitled to Judgment on the Sixth Cause of Action for Declaratory Relief.

In its First Amended Complaint ("FAC"), the District pled a cause of action for declaratory relief, seeking "an adjudication of the respective rights and obligations of the parties, and other relief to the extent necessary to provide full relief to the District," (FAC ¶ 74) and prayed for an Order:

> "declaring that defendants are liable for the full cost of all remedial and other actions necessary to abate and remove VOCs which are contaminating and threatening the District's property, and for such orders as may be necessary to provide full relief to the District." (FAC, Prayer at ¶3.)

Although the issue of what the District sought by way of declaratory relief was the subject of briefing by the parties prior to the start of trial, the District never clearly articulated what it wanted the Court to declare, even after six months of trial.

At times, the District indicated it was asking for injunctive relief. And at other times, the District seemed to want an order that the Defendants are responsible for the District's future costs. [RT 1115:3-1118:19; 1770:12-1775:24; 3359:3-3397:11; 3561:21-3576:2; 4620:22-4624:15; 4638:16-4641:11; 6137:6-18.]

To qualify for declaratory relief, a plaintiff must demonstrate two essential elements: (1) a proper subject of declaratory relief, and (2) an actual controversy involving justiciable questions relating to the parties' rights or obligations. (*Wilson & Wilson v. City Council of Redwood City* (2011) 191 Cal.App.4th 1559, 1582.)

The "actual controversy" language in Code of Civil Procedure section 1060 encompasses a probable future controversy relating to the legal rights and duties of the parties. It does not embrace controversies that are "conjectural, anticipated to occur in the future, or an attempt to obtain an advisory opinion from the court." Thus, while a party may seek declaratory judgment before an actual invasion of rights has occurred, it must still prove that the controversy is justiciable. And to be justiciable, the controversy must be ripe. (*Wilson & Wilson v. City Council*

of Redwood City, supra, 191 Cal.App.4th at 1582 (citations).)

1. The District Failed to Establish a Justiciable Controversy Between Itself and Arnold

As a threshold matter, the Court cannot issue an order regarding Arnold's "obligation for future [remedial] costs" (assuming the District's most recent Declaratory Relief intentions) because the District offered no evidence regarding its anticipated future costs relating to Arnold's activities. (*Id.*)

And as explained *supra*, the District's evidence failed to demonstrate that Arnold could have or did cause groundwater contamination or pollution, or that its conduct threatened to cause contamination or pollution at the 1551 Site in the future. As a result, the District's Declaratory Relief Count and the requested relief are premised on inconclusive information. (*C.f.*, 191 Cal.App.4th at 1582. (CCP Section 1060 does not embrace controversies that are "conjectural . . .").) Accordingly, the District's sixth cause of action against Arnold fails.

V. SUMMARY OF PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Based on the evidence and proposed factual findings stated above, Arnold respectfully requests the Court confirm the essential findings and conclusions as follows:

1. Arnold is entitled to judgment in its favor on the District's first, second and sixth causes of action.

2. In this phase of trial, the District seeks to recover from Defendants, including Arnold, the costs actually incurred by the District in connection with the North Basin Groundwater Protection Project. The purpose of the NBGPP is to remediate groundwater in the North Basin that is contaminated with volatile organic compounds ("VOCs"), perchlorate, and nitrate.

3. At trial, the District, through its expert, alleged that Arnold was responsible for releasing into groundwater the VOCs tetrachloroethylene, trichloroethylene, and 1,I,1-trichloroethane, the latter of which the District alleged degraded in groundwater into 1,1-

dichloroethane. The District further alleged that the District actually incurred costs in containing or cleaning up groundwater contamination caused by Arnold.

4. Of the chemicals of concern listed above, the only one which the District proved by a preponderance of the evidence was used during Arnold's business operations at the 1551 Site was 1,1,1-TCA. There is no evidence that Arnold ever used PCE or TCE. To the contrary, records in evidence and unrebutted testimony show that Arnold used only 1,1,1-TCA in its degreasing operations. Contrary testimony from former Arnold employee Daniel Hopen concerning other chemicals was unsupported and is not credible.

5. The District failed to prove by a preponderance of the evidence that Arnold released any chemical of concern at the 1551 Site. The mere presence of soil contamination at the 1551 Site found in the 1990s is not sufficient evidence that Arnold caused soil contamination. Arnold occupied the 1551 Site from 1960 until 1986. In 1994, eight years after Arnold left the site, Converse Consultants found PCE in soil in the vicinity of an outdoor clarifier. There is no evidence that Arnold used the outdoor clarifier where Converse Consultants detected PCE. To the contrary, former Arnold employees Donalee Farmer and Daniel Hopen both testified that Arnold used a clarifier located inside the facility, and neither recalled usage of an outdoor clarifier. Only two soil borings were drilled deeper than 60 feet, and solely to investigate the southern outdoor clarifier that Arnold did not use. [Ex. 10355 at pp. 16-17]. A subsequent investigation in 2007 discovered VOC contamination in soil under the building footprint at the 1551 Site in shallow soils, but the District has not proven by a preponderance of the evidence that this contamination originated from Arnold as opposed to one or more previous or subsequent occupants.

6. The District failed to prove by a preponderance of the evidence that soil contamination at the 1551 Site has impacted groundwater. The District has not provided the Court with any groundwater data from the 1551 Site. According to the District's Project Manager David Mark, the District's counsel has been in charge of selecting groundwater sampling sites. Nonetheless, the District has not installed any monitoring wells on or upgradient of the 1551 Site. The only testing performed by the District relating to the 1551

Site were off-site one-time grab samples, which Dr. Waddell admitted are not useful in establishing the movement of solvent in groundwater. These one-time grab samples do not establish that the 1551 Site impacted groundwater. Monitoring wells MW-1 and MW-2 located at 1550 E. Kimberly (the Johnson Controls site) do not establish that groundwater contamination found there originated from the 1551 Site given the numerous other potential sources of contamination, including Johnson Controls itself. Dr. Waddell admitted that PCE from the 1551 Site has not reached groundwater.

7. Even assuming that the 1551 Site has impacted groundwater, the District has not incurred response costs as a result of any groundwater contamination from the 1551 Site. Project manager David Mark testified that the goal of the NBGPP is to treat groundwater contaminant concentrations that are more than 5 to 10 times the maximum contaminant level or reporting level. Extraction well EW-3 is the Extraction Well drilled by the District which testimony established is directly downgradient of the 1551 Site. According to the District, PCE is the only contaminant that is projected to exceed its MCL by more than 5 to 10 times at EW-3. As previously stated, according to Dr. Waddell, Arnold is not responsible for PCE groundwater contamination. Dr. Waddell also speculated that groundwater contamination from the 1551 Site may reach EW-2 or EW-2A if the groundwater flow direction shifts. However, Dr. Waddell's speculation regarding future groundwater flow direction is not credible, is not entitled to any weight, and does not satisfy the District's burden of proof.

8. The District has not proven by a preponderance of the evidence that Arnold is responsible for 1,4-dioxane contamination in groundwater. There is no evidence that Arnold used 1,4-dioxane, and there is no evidence of 1,4-dioxane present in the soil at the 1551 Site. Although Dr. Waddell generically testified that 1,4-dioxane was used historically as a stabilizer in certain formulations of 1,1,1-TCA, which Arnold admittedly used at the 1551 Site, the District presented no evidence that the 1,1,1-TCA used by Arnold actually included 1,4-dioxane. Moreover, the District has not presented any expert testimony that Arnold caused 1,4-dioxane to reach groundwater.

9. The District has not incurred any costs in containing threatened groundwater contamination from the 1551 Site. The District has not undertaken soil remediation at the 1551 Site.

10. Given the District's failure to prove it has incurred costs in cleaning up contamination or pollution caused by Arnold, the District is not entitled to any contribution or indemnity from Arnold toward the District's costs in connection with the NBGPP.

11. The District is not entitled to declaratory relief against Arnold.

VI. CONCLUSION

In conclusion, the District's evidence failed to prove the essential elements of its first, second and sixth causes of action against Arnold. Specifically, the District failed to present evidence establishing its prima facie case that the 1551 Site or Arnold's operations at the 1551 Site caused or threatened to cause groundwater contamination or pollution which required the District to incur remediation or clean-up costs. For those reasons, and for all the reasons explained above, Arnold respectfully requests the Court find in favor of Arnold on the District's first, second and sixth causes of action.

DATED: September 4, 2012

Respectfully submitted,

MUSICK, PEELER & GARRETT LLP

By: */s/ Steven J. Elie*
Steven J. Elie
Attorneys for THE ARNOLD ENGINEERING COMPANY

PROOF OF SERVICE

Orange County Water District v. Northrop Corporation, et al.
Orange County Superior Court Case No. 04CC00715

STATE OF CALIFORNIA,

COUNTY OF LOS ANGELES

At the time of service, I was over 18 years of age and **not a party to this action.** I am employed in the County of Los Angeles, State of California. My business address is One Wilshire Boulevard, Los Angeles, California 90017-3383.

On September 5, 2012, I served the following document(s) described as **THE ARNOLD ENGINEERING COMPANY'S CLOSING SUMMARY BRIEF, ISSUES PRESENTED, [PROPOSED] FACTS PROVEN AT TRIAL AND [PROPOSED] CONCLUSIONS** on the interested parties in this action.

☒ **BY ELECTRONIC MAIL OR ELECTRONIC TRANSMISSION:** Based on a court order and agreement of the parties to accept service by e-mail or electronic transmission, I provided the documents listed above electronically to the Lexis Nexis website and thereon to those parties on the Service List maintained by the website by submitting and electronic version of the documents to Lexis Nexis. If the documents are provided to Lexis Nexis by 5:00 p.m., then the documents will be deemed served on the date that it was provided to Lexis Nexis.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on September 5, 2012, at Los Angeles, California.

Claire C. De Los Reyes